The spacing between the guide surfaces of the lower guide 142 and the upper guide surface defined in this exemplary embodiment by a portion of the curved surface 156 is preferably as small as possible for a given application. An exemplary suitable range for this spacing is between .5 mm and 2.0 mm.

IN THE CLAIMS

Cancel Claims 1-13 without prejudice or disclaimer of the subject matter contained therein.

14. A media handling system for handling sheets of media, comprising:

a pick roller structure having a circumferential media-contacting surface and arranged for rotation about a roller axis to contact and pick a sheet from an input source;

a drive roller structure arranged for rotation about a drive roller axis;

a media path extending between the pick roller structure and the drive roller structure;

a first guide structure positioned along a first longitudinal edge of the media path and providing a first media guide surface above the sheet when passing along the media path;

a second guide structure positioned along a second longitudinal edge of the media path and providing a second media guide surface below the sheet when passing along the media path;

the media path between the first guide structure and the second guide structure has a media entrance adjacent the pick roller structure and a media exit adjacent the drive roller structure, the first and second guide surfaces positioned such that a distance between the first and second guide surfaces in the media path is sufficiently small at said media entrance to constrain the movement of a trailing edge of the media sheet as the trailing edge leaves the pick roller between the pick roller structure and the drive roller structure to minimize trailing edge print defects.

15. The system of Claim 14 wherein said distance is greater at the media exit than at the media entrance.

16. The system of Claim 15 wherein said distance increases gradually from the media entrance to the media exit.

17. The system of Claim 14 wherein said distance is in the range between .5 mm and 5 mm.

18. The system of Claim 14 wherein the pick roller structure includes a plurality of spaced pick roller wheels, and wherein a corresponding plurality of pinch wheels are arranged to create nips between respective pick roller wheels and pinch wheels, and wherein the second guide structure is arranged to constrain and support a sheet of print media at regions between the nips, thereby reducing deformation of the sheet due to stresses exerted on the print medium at the nips.

19. The system of Claim 18 wherein said distance between the first guide structure and the second guide structure at said nips is in the range of .5 mm to 2 mm.

Cont Sub B1

20. An inkjet printer with improved media control to reduce trailing edge print defects, comprising:

an input tray for holding a stack of sheets of print media;

an output tray for receiving output sheets of media subsequent to printing operations;

a media path extending between the input tray and the output tray;

a pick roller structure disposed on the media path having a circumferential media-contacting surface and arranged for rotation about a roller axis to advance a sheet along the media path from the input tray;

a pick pinch roller structure arranged relative to the pick roller structure to define a pinch nip therebetween;

a drive roller structure disposed on the media path downstream of the pick roller structure and arranged for rotation about a drive roller axis;

a drive pinch roller structure arranged relative to the drive roller structure to define a drive nip therebetween;

a first guide structure positioned along a first longitudinal edge of the media path between the pick roller structure and the drive roller structure and providing a first media guide surface, said first guide surface being above a top surface of said sheet;

a second guide structure positioned along a second longitudinal edge of the media path between the pick roller structure and the drive roller structure and providing a

second media guide surface, said second guide surface being below a bottom surface of said sheet;

said media path being between the first guide structure and the second guide structure and having a media entrance adjacent the pick roller structure and a media exit adjacent the driver roller structure, and wherein a width of the media path defined by a distance between the first guide structure and the second structure is sufficiently small at the media entrance to constrain the movement of a trailing edge of a media sheet to minimize trailing edge print defects.

21. The printer of Claim 20 wherein the width of the media path is greater at the media exit than at the media entrance.

22. The printer of Claim 21 wherein the width of the media path increases gradually from the media entrance to the media exit.

23. The printer of Claim 20 wherein the width between the first guide surface and the second guide surface is in the range between .5 mm and 5 mm.

24. The printer of Claim 20 wherein the pick roller structure includes a plurality of spaced pick roller wheels, said pick pinch roller structure includes a corresponding plurality of pinch wheels arranged to create a plurality of pick nips between respective pick roller wheels and pinch wheels, and wherein the second guide structure is arranged to constrain and support a sheet of print media at regions between the plurality of pick nips,

thereby reducing deformation of the sheet due to stresses exerted on the print medium at the nips.

25. The printer of Claim 24 wherein said width of the media path between the first guide structure and the second guide structure at said plurality of pick nips is in the range of .5 mm to 2 mm.

26. The printer of Claim 24 wherein the width of the media path is greater at the media exit than at the media entrance.

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